

New Hampshire Occupational Health Surveillance Program: Fundamental Program
Grant #1U60OH009853-02
Annual Report of Major Outputs and Outcomes (2011 to 2012)

NH Division of Public Health Services, Bureau of Public Health Statistics and Informatics
Performance Period: July 1, 2011 to June 30, 2012

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The overall objectives of the program are to:

- Establish the NH Occupational Health Surveillance Program (NH OHSP) within the Division of Public Health Services, Bureau of Public Health Statistics and Informatics
- Collect, analyze, and interpret surveillance data, addressing the utility and limitations of existing databases for collecting and analyzing occupational illnesses and injuries
- Develop new data sources and additional indicators
- Identify priority occupational safety and health conditions in the state
- Disseminate data on the magnitude of occupational injuries and illnesses
- Integrate activities with existing NH public health surveillance systems
- Work with occupational safety and health stakeholders to recommend prevention strategies and interventions

Major Accomplishments and Outcomes

Occupational Health Indicators

Data analysis on 6 to 8 year trends (2000/2002-2007/2008) was published in an annual report. The report includes 16 of the 20 core NIOSH/CSTE indicators, plus data on indicators “modified” to utilize existing data.

An outcome of analyzing and producing data on the core indicators is the ability to identify priority areas for prevention strategies.

Information Dissemination and Communications Activities

- Added content to web page in DPHS: <http://www.dhhs.state.nh.us/dphs/hsdm/ohs/index.htm>
 - New Report on core indicators
 - Information sheet on the use of methylene chloride-based strippers
- Published malignant mesothelioma data on NH Environmental Health Data Information Network (www.nh.gov/epht/ehdin/index.htm)
- Set up direct RSS feed of all publications to NIOSH Clearinghouse
- Wrote article in the February edition of NIOSH eNews on including occupational health indicators in the Environmental Health Data Information Network of the NH Environmental Public Health Tracking Program
- Presented at NH Health Information Management Association meeting: Training on the *Utilization of the NH Hospital Discharge Data for Public Health*, in order to facilitate better coding of work related events.
- The Occupational Health Surveillance Advisory Committee met 3 times during Year 2. Topics covered in these meetings include: Workers’ compensation from an insurance Loss Prevention

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perspective (3 NH insurance carriers presented); MA Occupational Health Surveillance Program Teen Injury Program, and Program Evaluation results.

An outcome to information dissemination and education is an increased use of occupational health data by our stakeholders and others who have an interest in the data. We responded to our first data requests, on silicosis and work-related hospitalizations. More people are looking to us as experts in occupational health surveillance. A more educated stakeholder population is more successful in implementing prevention strategies and effecting policy change.

Enhance the OHSP and Develop New Data Sources

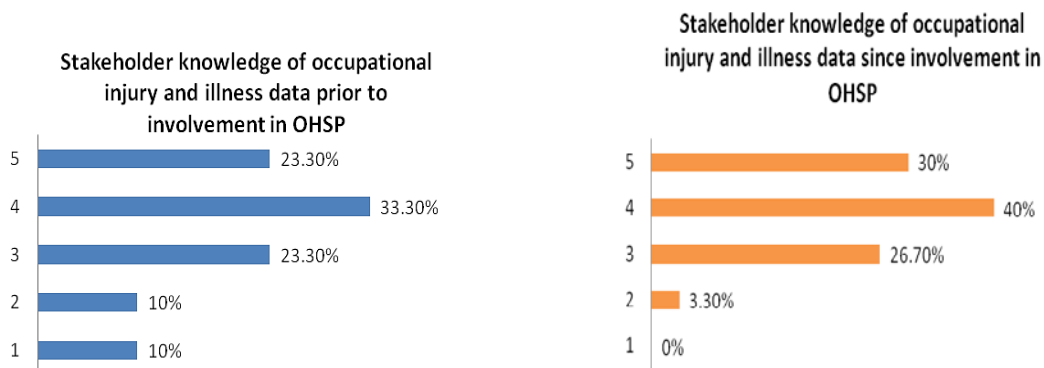
Additional efforts to enhance existing data sources included adding industry and occupation questions to the 2011 and 2012 BRFSS, adding fields for industry and occupation to the poison center data; adding occurrence (at work) codes to the hospital discharge data set (2010-2012), and coding of industry in the ABLES data. We have worked with the Department of Safety, Trauma Emergency Medical Services Information System (TEMSIS) data to explore work related emergency services events, and the NH Department of Labor workers' compensation data (just received 2010 and 2011).

An outcome of these efforts is more comprehensive data sets that can explore a variety of injury and illness data by where a person works. It's an important aspect of increasing our knowledge and understanding of the true burden of work-related injuries and illnesses.

Program Evaluation

We underwent a thorough program evaluation based on the CDC Framework and administered a stakeholder survey (see below).

An expected outcome is that more of our stakeholders will use our data when implementing worker safety and health initiatives, and for developing new prevention strategies and policies.



Graphs based on a Lichert scale: 1= No knowledge, 5= Very Knowledgeable

Integrate Activities with Existing NH Public Health Surveillance Systems

- Northern New England Poison Center - Occupational Poisoning Project
 - Added I/O fields to incoming call forms that are work-related.

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- Completed project to link poison center data to hospital emergency room data (2005 to 2008) to better understand final outcomes of work related poisonings in the hospital discharge data. Results to be published later in 2012 (peer reviewed article).
- Collaborated on bath stripper Issue Brief (see above).
- Adult Blood Lead Epidemiology and Surveillance Program (ABLES)
 - Interns from UMASS Lowell and the University of New Hampshire performed analysis on lower BLLs (10 to 25 µg/dL) for 2009-2011, and conducted surveys of workers to better understand exposures and protections in the workplace.
- Occupational mortality study in collaboration with NIOSH for the National Occupational Mortality Surveillance (NOMS) program (using NH data to populate NOMS).
 - Student intern from UMASS Lowell completed project on Patterns of Occupational Mortality 2002 to 2007 (using NIOSH coded data). Report to be published in the fall of 2012. The project will continue as we add years of coded data.
- Behavioral Risk Factor Surveillance System - Worked with NIOSH on adding industry and occupation questions to 2011 and 2012 survey.
 - In progress: Analyze and evaluate the relationship between occupations and industries and health status, prevalence of chronic disease, health behaviors (alcohol and tobacco use) and other health determinants such as obesity and sleep.
 - Helped develop training materials for interviewers.
 - Participating in NIOSH Workgroup for BRFSS states.
- Dartmouth Hitchcock Medical Center (DHMC) Electronic Report of Injury
 - Produced Issue Brief - Dashboard of indicators using Electronic Report of Injury (EROI) data for employees. Presented at American College of Preventive Medicine Annual Meeting, in February in Orlando, FL.
 - DHMC Electronic Medical Record Project – to include industry and occupation fields in the patient electronic medical record (includes key personnel at NIOSH)

As a result of these activities, the NH OHSP has produced more data, contributed to national health care discussions, and explored injury and illness rates within several industries.

Outcomes include educating our stakeholders and others responsible for prevention strategies, so they will come to us for their data needs. There is increased knowledge about occupational poisonings, adult blood lead exposures, injury and illness rates among healthcare workers, and patterns of mortality by where a person worked. This information is critical when informing prevention strategies and promoting policy changes to better protect workers.

Other Areas of Collaboration – Principal Investigator

- Participated on the NH EQUITY Partnership's Data Committee focused on better data collection of race, ethnicity and language; brought in speaker to cover Health Information Exchange and Meaningful Use of electronic medical records.
- Participating on Advisory Committee of the newly funded NH Injury Prevention Community Planning Program - one focus area is motor vehicle injury prevention (includes work-related)
- Assisted NH Coalition for Occupational Safety and Health (COSH) in securing a \$20,000 grant from the Endowment for Health, a private funder, focusing on collecting data from surveys administered to NH's immigrant and refugee workers. Results from this study will inform the

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funder's main theme of social and cultural barriers to access to health, and will contribute to the state's Plan to Address Health Disparities and Promote Health Equity in New Hampshire.

- Attended the NIOSH Occupational Health Disparities Conference in Chicago (September 2011)

Outcomes from collaboration include building awareness and educating various public health groups about the importance of occupational health as an integral part of public health (being a voice on various committees devoted to broader public health issues) and securing grants/resources for collecting important data to help us better understand conditions at work for our immigrant and refugee populations.

National Presentations

An important outcome to presenting our work in local, state and national venues is increasing visibility of New Hampshire as a leader in occupational health surveillance research.

- APHA Annual Meeting, "Characterization of Adult Blood Lead Levels in the New Hampshire Adult Blood Lead Epidemiology and Surveillance Program (ABLES)," Washington, D.C., November 2011
- *Building Successful Partnerships*, Occupational Health Surveillance Partners Meeting, December, 2011, Orlando, FL
- American College of Preventive Medicine Annual Meeting, "The use of electronically reported occupational injury data to populate a dashboard to improve occupational health surveillance in the health care setting in New Hampshire," February, Orlando, FL (Alicia Zbehlik).
- CSTE Annual Meeting – 3 abstracts accepted – June 2012, Omaha, NE
 - *Occupational health surveillance in New Hampshire: Using the BRFSS to better understand work as a factor in health,*
 - *Filling the data gaps on minority health: A survey to better understand health disparities at work,*
 - *Results of a poison center data linkage project: Using proxy variables in hospital discharge data to better document underreporting of occupational poisonings*
- NH Health Information Management Association meeting/training, *Utilization of the NH Hospital Discharge Data for Public Health*, Concord, NH, December 2012
- NH Research Group, *Linking Poison Center Call Data to Hospital Discharge Data, the Reality of Under-Reporting and ICD-9 Coding Accuracy*, Concord, NH, April 2012
- Invited Guest Lectures on occupational health surveillance: Keene State College, Health Sciences course and University of New Hampshire, Department of Health Management and Policy, College of Health and Human Services, Environmental Health Introduction course, April 2012
- NIOSH Workers' Compensation meeting – *Exploring New Hampshire Workers' Compensation Data for its Utility in Enhancing the State's Occupational Health Surveillance System*, Washington, D.C. June 2012